## WHAT IS CLAIMED IS:

## **Patent Claims**

- 1. Mobile radiotelephone device for the wireless transmission of QPSK-modulated data, comprising
- -- a controller (22) that is designed for a transmission of GFSK-modulated data, and
  -- an adaptor module (23) that converts GFSK-modulated data output by the controller (22) into QPSK-modulated data to be transmitted or, respectively, that converts received, QPSK-modulated data into GFSK-modulated data and gives them to the controller (23).
- 2. Mobile radiotelephone device according to claim 1, characterized in that the adaptor module (23) outputs a synchronization signal to the controller (22) in the synchronized conditions.
- 3. Mobile radiotelephone device according to claim 1 or 2, characterized in that the controller is a DECT controller (22).
- 4. Mobile radiotelephone device according to one of the claims 1, 2 or 3, characterized in that the adaptor module (23) synchronizes to a received, QPSK-modulated signal.
- 5. Mobile radiotelephone device according to claim 4, characterized in that the adaptor module (23) time-shifts the synchronization signal for the controller (22) dependent on its synchronization onto the QPSK-modulated signal.
- 6. Mobile radiotelephone device according to one of the preceding claims, characterized in that the adaptor module (23) drives an RF module (4, 5) such that the data are modulated onto a carrier frequency fx that lies outside the DECT band.
- 7. Mobile radiotelephone device according to claim 6, characterized in that the carrier frequency fx lies in a 2.4 GHz band.
- 8. Mobile radiotelephone device according to one of the preceding claims, characterized in that the adaptor module is an ASIC (23).
- 9. Mobile radiotelephone device according to one of the preceding claims, characterized in that the adaptor module (23) converts GRSK-modulated data into pi/4 QPSK-modulated data or, respectively, converts received pi/4 QPSK-modulated data

30 into GFSK-modulated data.

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10. Method for the wireless transmission of QPSK-modulated data with a controller (22) that is designed for a transmission of GFSK-modulated data, whereby an adaptor module (23) converts GFSK-modulated data output by the controller (22) into QPSK-modulated data to be transmitted or, respectively, converts received, QPSK-modulated data into GFSK-modulated data and gives them to the controller (23).

- 11. Method for the wireless transmission of QPSK-modulated data according to claim 10, characterized in that the adaptor module (23) outputs a synchronization signal to the controller (22) in the synchronized condition.
- 12. Method according to claim 11, characterized in that the controller is a DECT controller (22).
- 13. Method according to one of the claims 11 or 12, characterized in that the adaptor module (23) synchronized itself from a received, QPSK-modulated signal.
- 14. Method according to claim 13, characterized in that the adaptor module (23) time-shifts the synchronization signal for the controller (22) dependent on its synchronization onto the QPSK-modulated signal.
- 15. Method according to according to one of the preceding claims, characterized in that the adaptor module (23) drives an RF module (4, 5) such that the data are modulated onto a carrier frequency fx that lies outside the DECT band.
- 16. Method according to according to claim 15, characterized in that the carrier frequency fx lies in a 2.4 GHz band.
- 17. Method according to according to one of the claims 10 through 16, characterized in that the adaptor module (23) converts GFSK-modulated data into pi/4 QPSK-modulated data or, respectively, converts received pi/4 QPSK-modulated data into GFSK-modulated data.
- 18. Method according to one of the claims 10 through 17, characterized in that the carrier frequency fx is changed after a predetermined time duration.
- 19. Method according to claim 18, characterized in that the carrier frequency fx is changed after a time slot (Zx) or a frame of the transmission.

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